

BLACK NEEDLERUSH

Juncus roemerianus Scheele.
Plant Symbol = JURO

Contributed by: USDA NRCS Plant Materials
Program



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Alternate Names

Black needlerush, black grass, Roemer's rush.

Uses

Dense stands of black needlerush form deep fibrous root systems, which provide very good shoreline protection, filter suspended solids, uptake nutrients, and facilitate substrate oxidation. With its range of salinity tolerances, black needlerush is used in tidal estuary restoration along the Atlantic and Gulf coasts. Seed and vegetative parts of black needlerush are utilized by waterfowl, muskrats and non-game birds.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Juncus roemerianus is a moderate growing, bunch forming, grass-like perennial. The plant is coarse and rigid, 0.5-1.5 m tall. The leaves are terete, stiff and pungent. The inflorescence is lateral with an involucre bract that is terete and erect. The perianth is usually brownish, 3-3.5 mm long with sepals longer and is more pointed than petals. Seeds are dark and .06 mm long. Black needlerush flowers from May to October; the seed matures from July to November. It is found growing in brackish marshes in dense zonal stands.

Distribution and Adaptation

Black needlerush is one of the dominate species in the marshes on the southern Atlantic and Gulf coasts. It dominates 20.7% of the marsh in the south Atlantic states and 7.3% of Gulf coast marshes. But, it covers more marsh area on the Gulf coast than the Atlantic coast. Its distribution is continuous from Maryland to Florida and westward to southwestern Texas. Black needlerush occupies the edge of ditches and shorelines of bays, back bays and tributaries of tidal systems in coastal systems. It is well adapted to fine and medium textured soils, has a high tolerance to anaerobic conditions, high tolerance to calcium carbonate (CaCO_3) and tolerates pH ranges from 4.0-7.0.

It is usually restricted to coastal marshes and estuaries, but it may extend 10 to 15 miles inland along river estuaries. For a current distribution map, please consult the Plant Profile page for this species on the PLANTS Website.

Establishment

In the wild, black needlerush establishes from seed, rhizomes or vegetative divisions from storm derived floatsum. Researchers have shown that black needlerush seeds from the Mississippi Gulf coast require light for germination. This seed remains viable for one year and will germinate at a high percentage any time after maturity, and without a cold wet stratification.

Nursery and greenhouse production are effectively accomplished with seed or vegetative divisions. Divisions should include several good roots, a node and three to five green stems. Seed can also be stratified in saturated soil-less potting media with high percentage of fine organics. Seed and media can be thoroughly moistened by placing the mix into

zip lock bags and stored at approximately 36°F. for 60 days. Materials can be direct seeded into greenhouse starter trays with diurnal temperatures of 80°F days and 50°F nights and 14 hour photoperiods. Seedling emergence was limited and rate of growth slow.

For greenhouse forced vegetative divisions use similar environmental photo-periods and diurnal temperatures listed above.

Consult your local university extension service agent for pesticide recommendations.

Management

In the mid-Atlantic, several major nursery pests may present themselves and required IPM strategies. These pests can include pythium, brown patch, fungus gnats and algae. This is based upon professional experiences at the NRCS Cape May Plant Material Center New Jersey and diagnosis of pests by Rutgers University Turf Grass Department staff.

Cultivars, Improved, and Selected Materials

No improved varieties are known, but numerous wetland nurseries carry local or regional ecotypes.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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